Pitch Deck for Nile

By: AiP Group 14

Overview
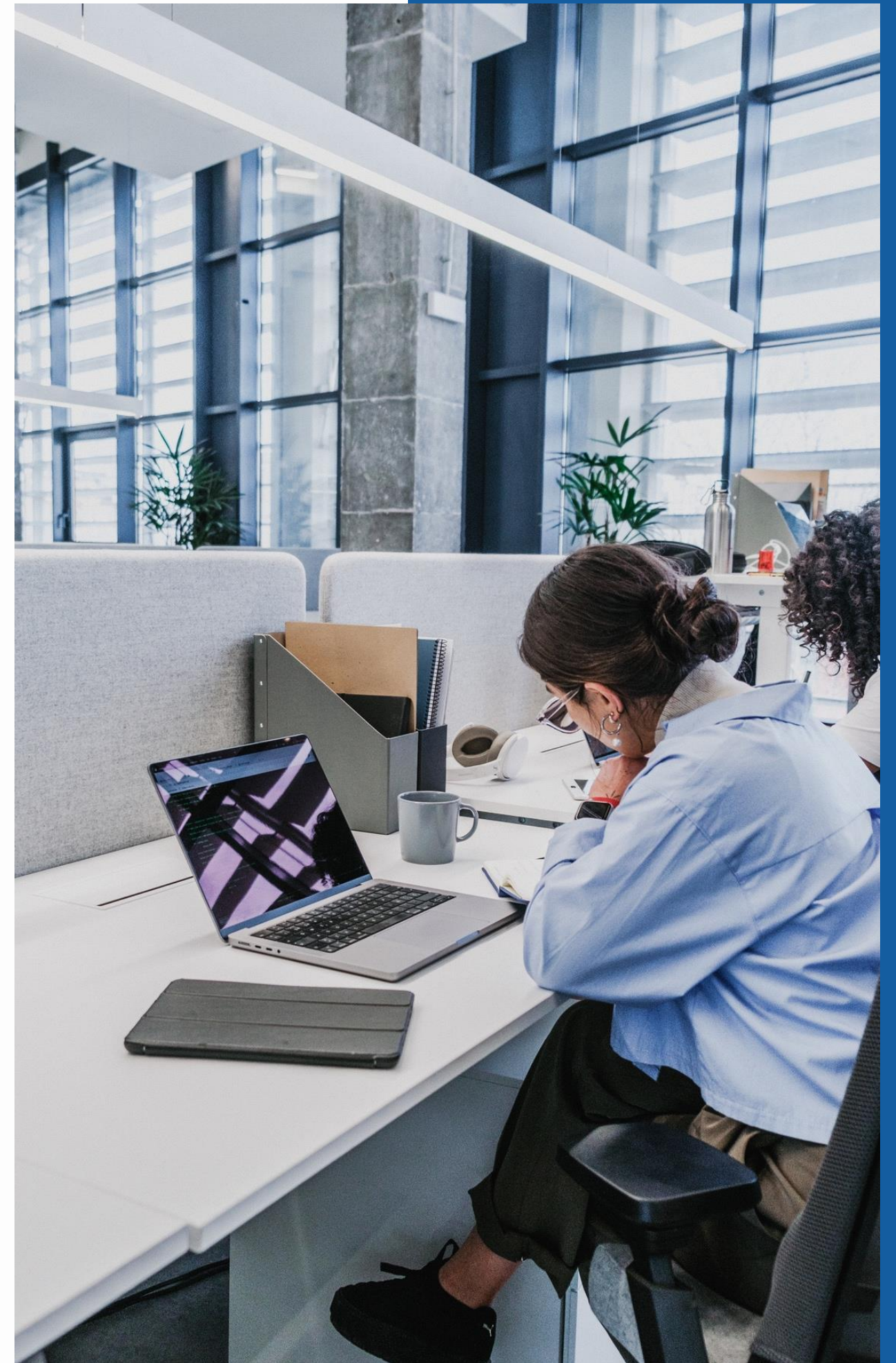
Our Team

Chien-Hao Wang

Ankamreddi Divyasri

Ming-Yen, Kuo
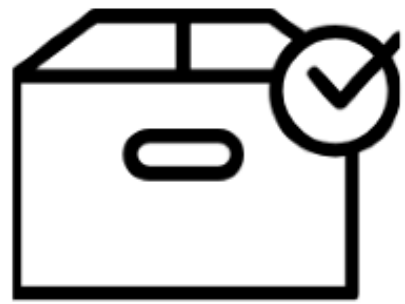
Ying-Xi, Liu

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Introduction

- Positive reviews drive sales, build trust, and improve the general reputation of Nile.
- Development of a machine learning model to predict customers likely to leave positive reviews
- Optimise its review strategy, allocate resources effectively, and strengthen its market position.

Objective

To correctly predict whether the customers will leave positive reviews

Definition of Positive Reviews

We define the range of positive reviews from score 4 to 5 and the range of negative reviews from score 1 to 3.

Total Number of Review Scores

Review Score

Review Groups
- Positive Reviews
- Negative Reviews

5 — 58.31%

4 — 19.40%

The Ratio of Positive Reviews to Negative Reviews is 3 to 1

3 — 8.40%

2 — 3.24%

1 — 10.64%

0K   5K   10K   15K   20K   25K   30K   35K   40K   45K   50K   55K

Number of Customers
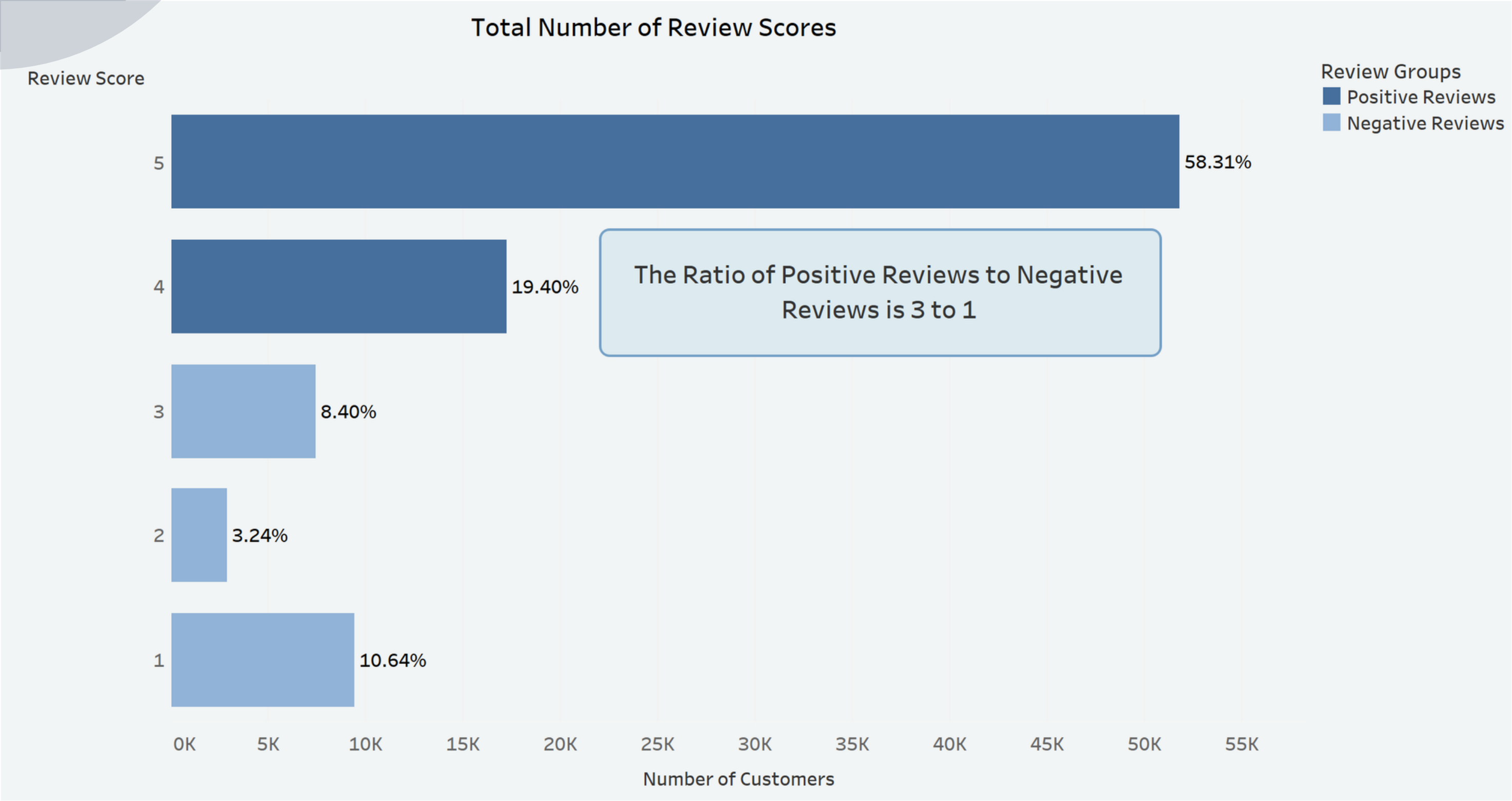
Positive Review

4 - 5

Negative Review

1 - 3

Key Attributes of the Input Data

Product Aspect

- Product Category
- Price of Each Product
- Length of Product's Name
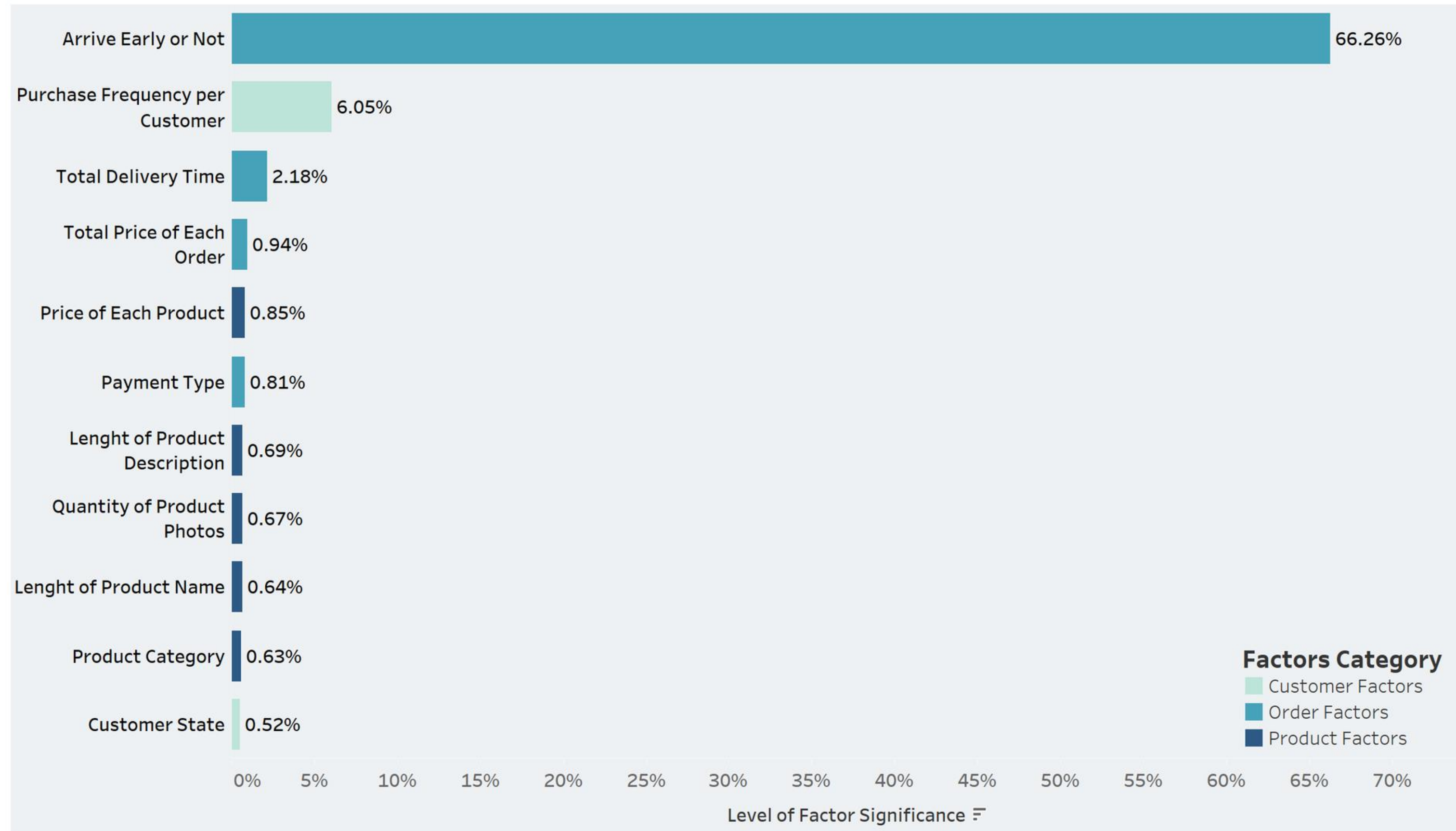- Length of Product's Description
- Quantity of Product's Photo

Customer Aspect

- State of Customer's Residency
- Purchase Frequency per Customer

Order Aspect

- Payment Type
- Total Price of Each Order
- Duration of Delivery Time from The Time of Order Approved
- Whether Orders Delivered earlier or later than Estimated Date

What Matters Most in Our Analysis

Factor	Value
Arrive Early or Not	66.26%
Purchase Frequency per Customer	6.05%
Total Delivery Time	2.18%
Total Price of Each Order	0.94%
Price of Each Product	0.85%
Payment Type	0.81%
Lenght of Product Description	0.69%
Quantity of Product Photos	0.67%
Lenght of Product Name	0.64%
Product Category	0.63%
Customer State	0.52%

Factors Category
- Customer Factors
- Order Factors
- Product Factors

Level of Factor Significance

Key Attributes – Delivery Time & Purchase Frequency

Purchase Frequency per Customer

Bar	Value
1	1.6497
2	1.5657
3	1.3965
4	1.2872
5	1.3046

Y-axis: Average of Purchase Frequency

Review Groups
- Positive Reviews
- Negative Reviews

Average Delivery Time

Bar	Value
1	20.044
2	15.675
3	13.693
4	11.818
5	10.255

Y-axis: Average Delivery Time (Days)

Whether Orders Delivered Early or Not

Category	Number of Orders
Arrive Late	4,651
Arrive Early	15,123
Arrive Late	2,389
Arrive Early	66,572

Y-axis: Number of Orders

Customer Aspect

Purchase Frequency per Customer
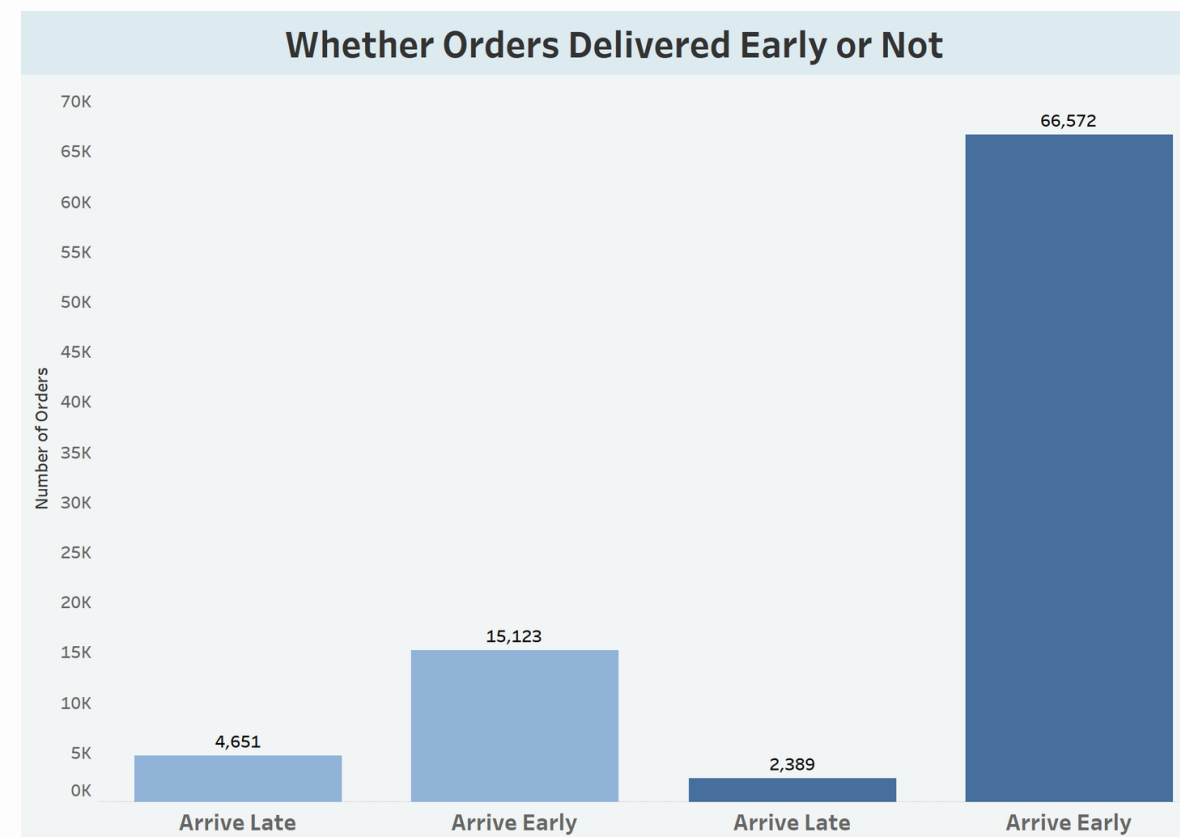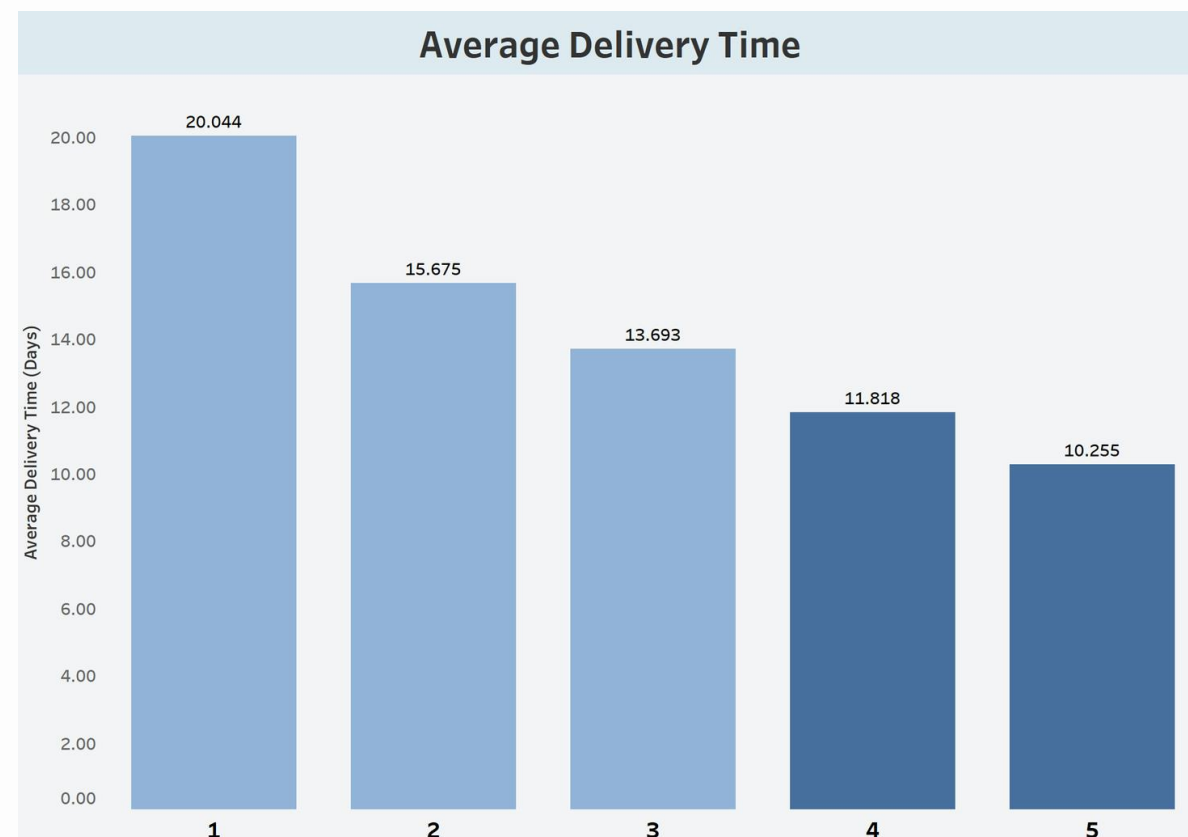
Order Aspect

Duration of Delivery Time from The Time of Order Approved

Whether Orders Delivered later than Estimated Date

Key Attributes – Delivered Earlier or Later
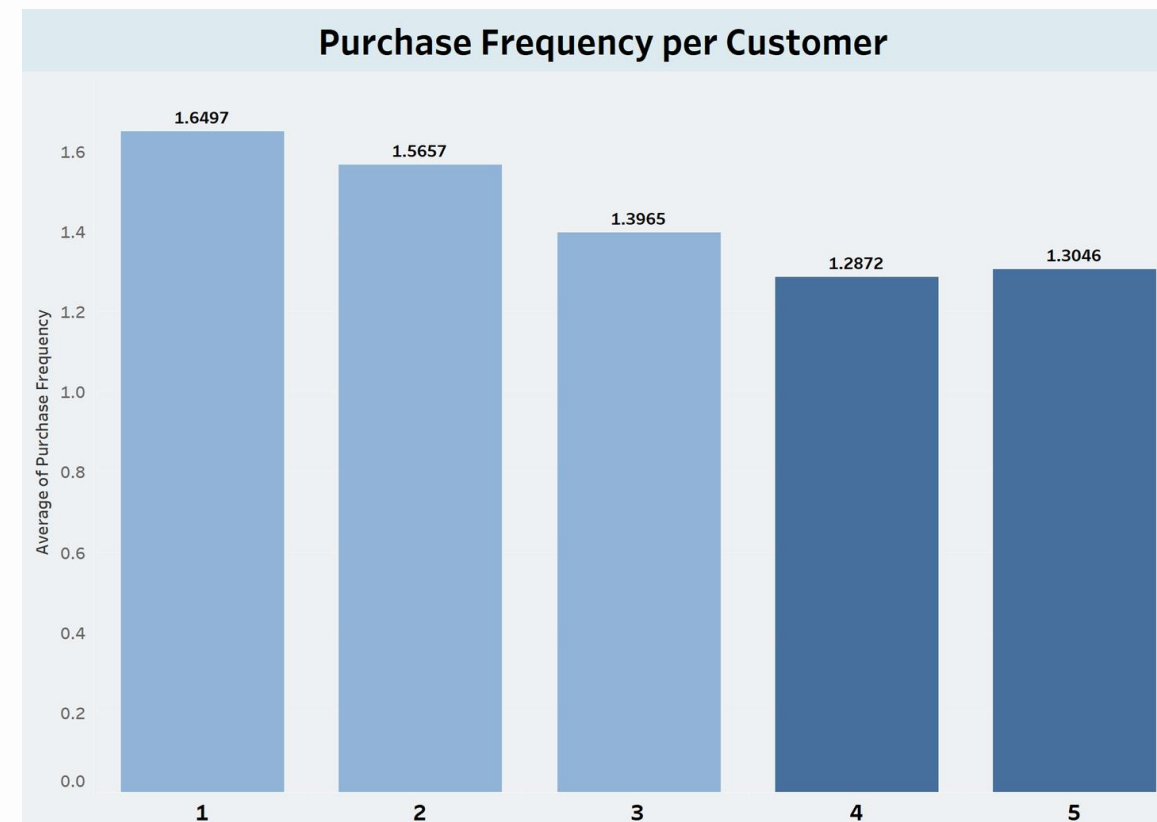

Whether Orders Delivered Early or Not

Number of Orders

70K
65K
60K
55K
50K
45K
40K
35K
30K
25K
20K
15K
10K
5K
0K

Arrive Late — 4,651
Arrive Early — 15,123
Arrive Late — 2,389
Arrive Early — 66,572

Review Groups
- Positive Reviews
- Negative Reviews

Order Aspect

Whether Orders Delivered later than Estimated Date
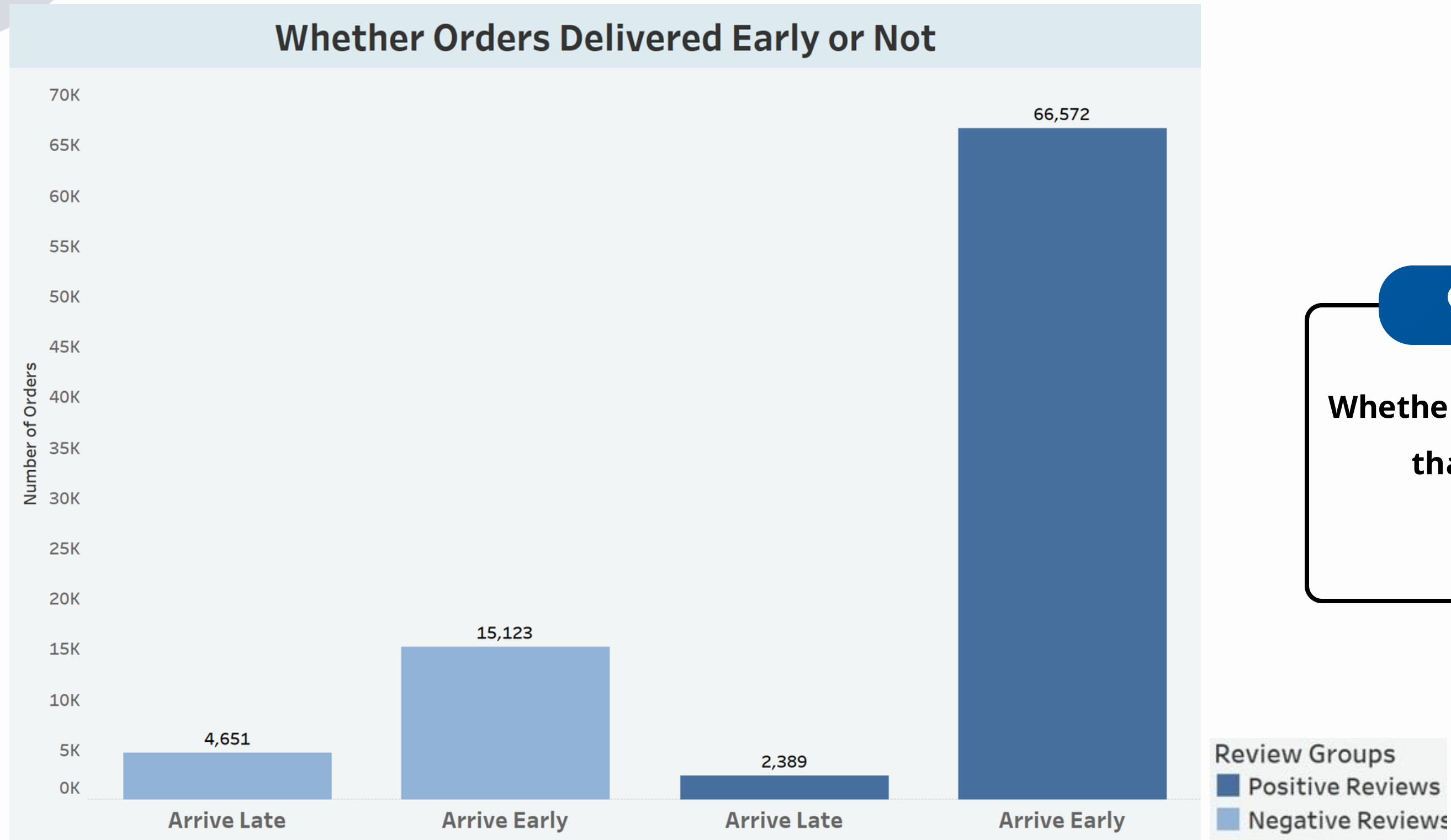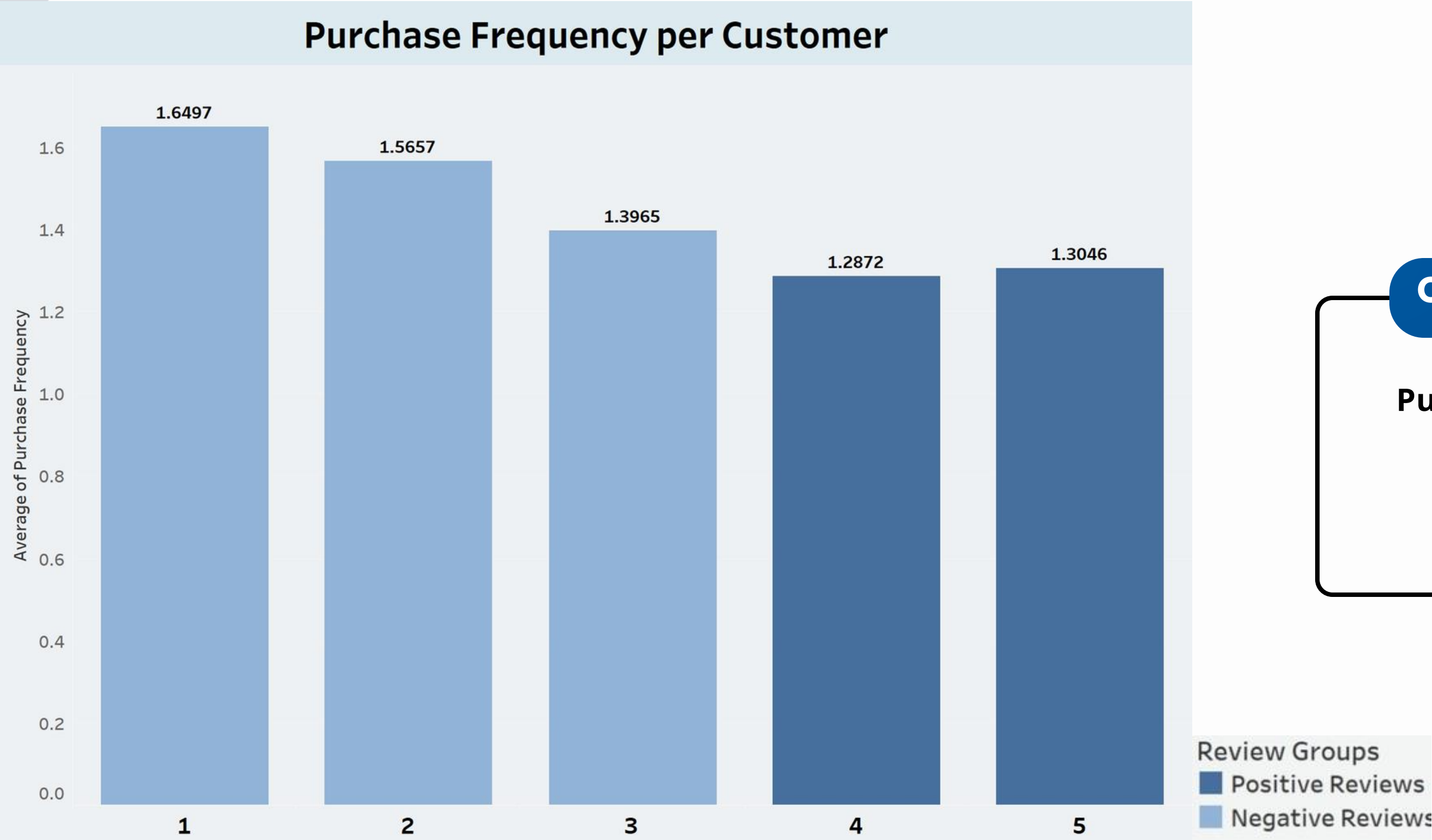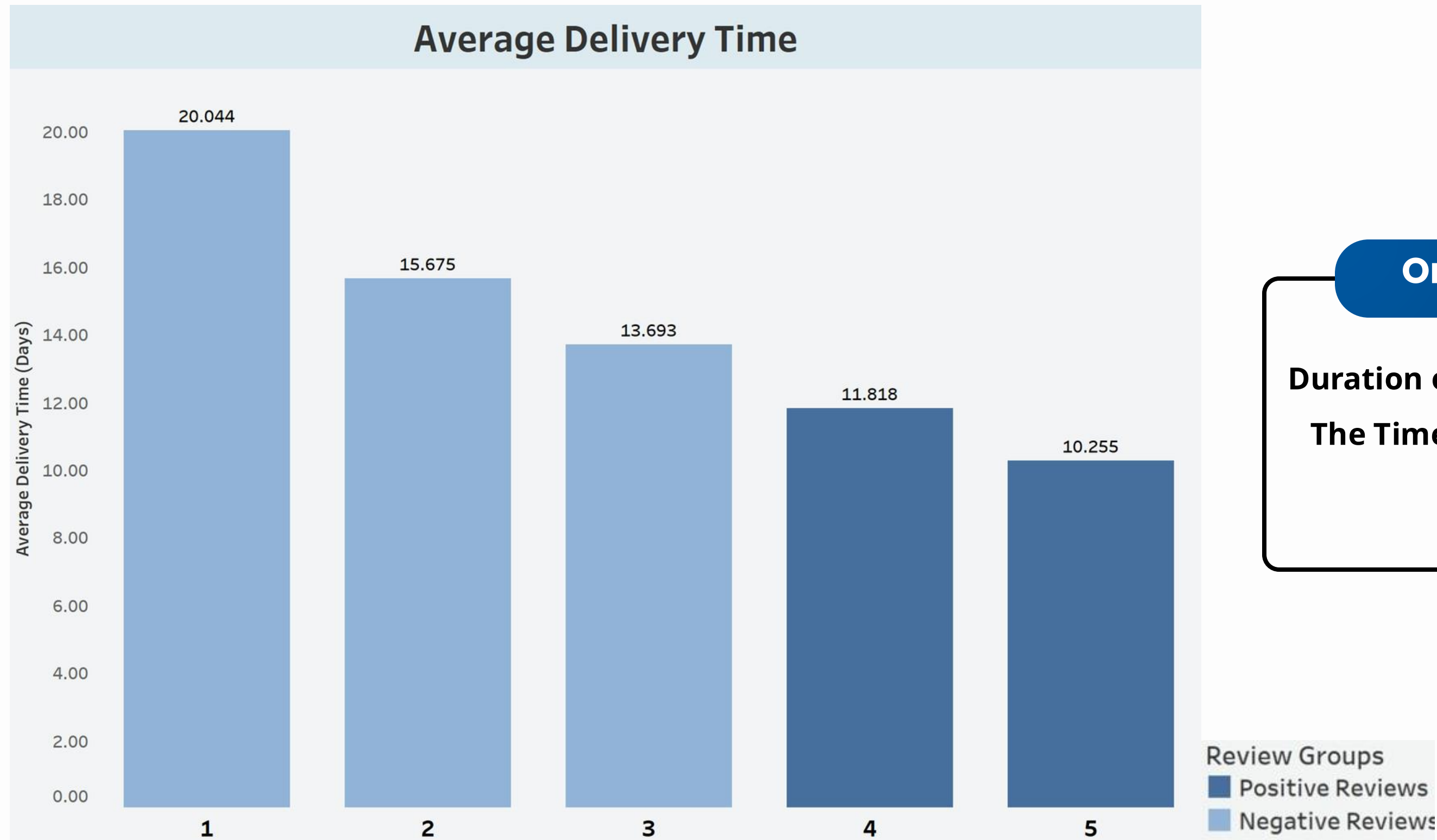
Key Attributes – Purchase Frequency

Purchase Frequency per Customer

Customer Aspect

Purchase Frequency per Customer

Key Attributes – Delivery Time

Average Delivery Time

20.044
15.675
13.693
11.818
10.255

Average Delivery Time (Days)

1 2 3 4 5

Review Groups
Positive Reviews
Negative Reviews

Order Aspect

Duration of Delivery Time from The Time of Order Approved

Model Accuracy

Our predictive model leverages advanced machine learning techniques to analyse and classify customer reviews with an overall accuracy of 81%.

→ **The model successfully capturing most of the positive reviews**

81%

Recommendation

- **Optimize Delivery Processes**
  - Focus on reducing delivery times
  - Enhance logistical efficiency

- **Launch Next-Day Delivery Service**
  - Drives short-term sales growth
  - Boosts positive customer reviews

Further steps

Enhance model's ability of identifying negative reviews.

Short Term

Long Term

Integrate the model into Nile's CRM to automatically target and track the customers likely to leave positive reviews

Conclusion